

What is claimed is:

1. An apparatus for assembling tires and wheels with respect to one another comprising:

    a plurality of modules removably interconnected with one another to form an assembly line; and

    an endless conveyor member for moving wheels along said assembly line and supported for circling movement along said length by said plurality of modules.

2. The apparatus of claim 1 wherein said plurality of modules are identical with respect to one another.

3. The apparatus of claim 1 wherein each of said plurality of modules is exchangeable with any other of said plurality of modules.

4. The apparatus of claim 1 wherein each of said plurality of modules includes an upper frame assembly and a lower frame assembly.

5. The apparatus of claim 4 wherein the upper frame assembly is mounted on said lower frame assembly.

6. The apparatus of claim 4 further comprising:

    a plurality of carriages moveable along said plurality of modules with said conveyor member, wherein each of said plurality of modules includes first and second aligning tracks associated with said upper frame assembly for guiding movement of said carriages through said plurality of modules in a first direction.

7. The apparatus of claim 6 wherein each of said plurality of modules further comprises supporting mechanisms for supporting movement of said carriages through said plurality of modules in a second direction.

8. An apparatus for assembling tires and wheel with respect to one another comprising:

a plurality of modules removably interconnected with one another to form an assembly line;

a plurality of workstations dispersed between said modules for assembling the tires to the wheels; and

a continuous conveyor member for moving wheels and tires along said assembly line, wherein said conveyor member defines a closed loop resting upon said modules while transporting tires in a first direction and supported by said modules while moving in a return direction.

9. The apparatus of claim 8 wherein said endless conveyor member is a chain.

10. The apparatus of claim 8 wherein said plurality of workstations include a tire soaping station, a wheel soaping station and a wheel assembly workstation for assembling individual said soaped tires and individual said soaped wheels with respect to one another.

11. The apparatus of claim 8 wherein said plurality of workstations include at least two wheel assembly workstations for assembling individual said soaped tires and individual said soaped wheels with respect to one another.

12. The apparatus of claim 8 further comprising:

a plurality of carriages moveable along said plurality of modules with said conveyor member, wherein each of said plurality of modules includes first and second aligning tracks associated with said upper frame assembly for guiding movement of said carriages through said plurality of modules in a first direction.

13. The apparatus of claim 12 wherein each of said plurality of modules further comprises supporting mechanisms for supporting movement of said carriages through said plurality of modules in a second direction.

14. An apparatus for assembling tires and wheel with respect to one

another comprising:

a plurality of modules removably interconnected with one another to form an assembly line;

an endless conveyor member for moving wheels along said assembly line and supported for circling movement along said length by said plurality of modules;

a wheel soaper workstation for soaping wheels moved along said assembly line by said endless conveyor member and disposed along said assembly line adjacent a first module of said plurality of modules;

a tire soaper workstation for soaping tires to be moved to said endless conveyor member and disposed along said assembly line adjacent a second module of said plurality of modules;

a transfer device for receiving soaped tires from said tire soaper workstation and transferring said soaped tires to said endless conveyor member downstream of said wheel soaper and disposed along said assembly line adjacent a third module of said plurality of modules;

a wheel assembly workstation for assembling individual said soaped tires and individual said soaped wheels with respect to one another, said wheel assembly workstation disposed along said assembly line adjacent a fourth module of said plurality of modules, downstream of said wheel soaper workstation and said transfer device; and

a tire inflation workstation disposed along said assembly line adjacent a fifth module of said plurality of modules, downstream of said wheel assembly workstation.